CLAIMS

Amend the claims as follows.

1. (currently amended) A method for transmitting data over a transmission channel, comprising:

accepting, at an input of a data transmitter, data that has been encoded into a base layer and an enhancement layer;

transmitting the base layer on the transmission channel;

determining a bandwidth available to the data transmitter associated with transmitting the base layer; ~~and~~

transmitting the enhancement layer if there is enough bandwidth available to transmit the enhancement layer responsive to determining the bandwidth associated with transmitting the base layer; and

ceasing the transmitting the enhancement layer responsive to accepting, at an input of a data transmitter, data that has been encoded into a second base layer and a second enhancement layer.

2. (previously presented) The method of claim 1 wherein determining if there is enough bandwidth available to the data transmitter to transmit the enhancement layer in addition to the base layer comprises calculating a bandwidth previously used by the data transmitter in previously transmitting layers.

3. (previously presented) The method according to claim 1 wherein determining if there is enough bandwidth available to the data transmitter to transmit the enhancement layer in addition to the base layer comprises measuring data traffic on the transmission channel to determine if enough bandwidth exists to transmit additional layers.

4. (previously presented) The method according to claim 1 wherein the data transmitter has a pre-set target data rate, and wherein determining if there is enough bandwidth available to the data transmitter to transmit the enhancement layer in addition to the base layer already transmitted comprises determining whether an average bandwidth used by the data transmitter over a last measuring period is below the pre-set target data rate.

5.   (original) The method according to claim 4 wherein the last measuring period is a period of time.

6.   (original) The method according to claim 4 wherein the last measuring period is a period in which a predetermined number of pieces of data have been transmitted over the transmission channel by the data transmitter.

7.   (original) The method according to claim 1 wherein the data transmitter has a pre-set maximum transmission rate, and wherein the data transmitter ensures that its rate of transmitting data is below the pre-set maximum transmission rate.

8.   (original) The method according to claim 1 wherein the data is additionally encoded as a second enhancement layer, the method further comprising:

    determining if there is enough bandwidth available to the data transmitter to transmit data in addition to the base and enhancement layers already transmitted by the data transmitter; and

    transmitting the second enhancement layer if there is enough bandwidth available to transmit the second enhancement layer.

9.   (original) The method according to claim 1 wherein transmitting the base layer on the transmission channel comprises transmitting the base layer on a LAN connection between two or more computers.

10.   (original) The method according to claim 1 wherein transmitting the base layer on the transmission channel comprises transmitting data from a media server to an image projector.

11.   (original) The method according to claim 1 wherein transmitting the base layer on the transmission channel comprises transmitting data from a media server to a decoding device.

12.   (original) The method according to claim 1 wherein determining if there is enough bandwidth available to the data transmitter to transmit data in addition to the base layer already transmitted comprises calculating at least two average bandwidths used by the data transmitter, each of the average bandwidths calculated over different measuring periods.

13.   (currently amended) A multi-layer data transmission system, comprising:

a transmission scheduler having a first data input configured to accept an encoded base layer of data and an enhancement layer of data, and the transmission scheduler having an output terminal; and

a scheduling operation controlling the transmission scheduler and configured to cause the transmission scheduler to send the base layer of data from the output terminal of the transmission scheduler when it is received, ~~and~~ configured to determine a bandwidth associated with sending the base layer, ~~and~~ configured to determine if there is enough bandwidth to send the enhancement layer of data after determining the bandwidth associated with sending the base layer, <u>configured to send the enhancement layer of data from the output terminal of the transmission scheduler if there is enough bandwidth to do so, and configured to cease sending the enhancement layer responsive to accepting a new encoded base layer of data and a new enhancement layer of data at the first data input of the transmission scheduler.</u>

14.   (canceled)

15.   (original) The data transmission system according to claim 14, wherein there is enough bandwidth to send the enhancement layer if an average data transmission rate of the transmission scheduler is less than a predetermined rate.

16.   (original) The data transmission system according to claim 14, wherein there is enough bandwidth to send the enhancement layer if there is available bandwidth on a transmission channel coupled to the output terminal of the transmission scheduler.

17.   (previously presented) A data transmission system, comprising:

an encoder having an input for receiving a data stream and configured to encode the data stream into a base layer and at least one enhancement layer;

a transmission scheduler coupled to the encoder and having an input terminal to accept the encoded layers of data, and having an output terminal coupled to a transmission channel; and

a scheduling operation running on the transmission scheduler, configured to signal the transmission scheduler to send the base layer of data from the output terminal of the transmission scheduler after it is received, ~~and~~ configured to signal the transmission scheduler to send the at least one enhancement layer responsive to determining the bandwidth used by the transmission scheduler sending the base layer, and configured to cease sending the at least one enhancement layer responsive to accepting a new encoded layers of data at the input terminal of the transmission scheduler;

wherein the scheduling operation maintains an average target bandwidth.

18. (original) The data transmission system of claim 17 wherein the scheduling operation is configured to determine whether there is enough bandwidth available to the transmission scheduler to send a first of the at least one enhancement layers from the output terminal of the transmission scheduler.

19. (previously presented) The data transmission system of claim 18 wherein the scheduling operation is configured to determine there is enough bandwidth available to the transmission scheduler when an average bandwidth rate used by the transmission scheduler is less than the target bandwidth rate.

20. (original) The data transmission system of claim 18 wherein the scheduling operation is configured to determine there is enough bandwidth available to the transmission scheduler when an instantaneous bandwidth rate on the transmission channel is below a predetermined rate.

21. (original) The data transmission system of claim 17 wherein the scheduling operation is configured to determine whether there is enough bandwidth available to the transmission scheduler to send a first and a second of the at least one enhancement layers from the output terminal of the transmission scheduler.

22. (original) The data transmission system of claim 21 wherein the scheduling operation is configured to determine whether there is enough bandwidth available to the transmission scheduler to send the first of the at least one enhancement layers from the output terminal of the transmission scheduler prior to determining whether there is enough bandwidth available to the transmission scheduler to send the second of the at least one enhancement layers.

23. (new) A method of generating a video image comprising:

receiving and decoding data that has been encoded into a base layer;

generating and displaying a video image responsive to the decoded base layer of data;

receiving and decoding data that has been encoded into an enhancement layer;

enhancing the quality of the video image responsive to the decoded enhancement layer of data.

24. (new) The method of claim 23 where data that has been encoded into the enhancement layer is received if a sufficient bandwidth is available to transmit the data.

25. (new) A multi-layer data receiving system, comprising a decoder configured to:

receive and decode data that has been encoded into a base layer;

receive and decode data that has been encoded into an enhancement layer;

a viewer configured to:

generate a video image responsive to the decoded data from the base layer; and

enhance the quality of the video image responsive to the decoded data from the enhancement layer.

26. (new) The system of claim 25 wherein data that has been encoded into an enhancement layer is received only under a favorable bandwidth condition.